



## WILDLIFE MANAGEMENT

## AND RESEARCH NOTES

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	<b>TITLE:</b> Waterfowl Banding	

**Abstract:** During 2010, 3,604 Canada geese (*Branta canadensis maxima*), 4 mallards (*Anas platyrhynchos*), and 824 wood ducks (*Aix sponsa*) were banded. 661 relocated Canada geese were also banded, with 111 also receiving plastic tarsal bands. The minimum banding goal for Canada geese was exceeded. Banding should continue as a necessary tool in waterfowl management. Canada goose banding effort should be expanded to include as many relocated urban geese as is practicable.

### History

The banding program carried out by the Indiana Division of Fish and Wildlife (IDFW) is a cooperative effort between IDFW, the US Fish and Wildlife Service (USFWS), and the US Geological Survey (USGS) through the Bird Banding Laboratory (BBL). The IDFW's goals have historically been to band 2,000 locally-breeding Canada geese (*Branta canadensis maxima*) each year, as well as 1,285 wood ducks (*Aix sponsa*).

### Methods

Indiana Division of Fish and Wildlife (IDFW) biologists and assistants captured resident waterfowl using funnel traps (geese) and baited traps (wood ducks). Canada geese were banded during their flightless period, which occurs during the last two weeks of June. Wood ducks were banded during July and August. Mallards are banded incidentally to other banding efforts. All banding records were reported to the Bird Banding Laboratory (Laurel, Maryland) using BANDIT software. Wood duck banding occurred on four participating FWAs: Hovey Lake, Jasper-Pulaski, LaSalle, and Willow Slough. In addition, wood ducks were banded at Monroe and Mississinewa reservoirs.

A portion of Canada geese that were relocated from urban areas to FWAs were also banded with plastic tarsal bands. Orange bands were placed on adult birds, while white bands were placed on juvenile birds. These bands help determine rates at which relocated urban birds return to urban areas.

### Results

A total of 3,604 Canada geese were banded on state and private properties in Indiana (Table 1). For all banded geese, the juvenile to adult age ratio was 0.25:1 and the male to female ratio was 0.98:1 (not including relocated birds). A total of 661 relocated Canada geese were banded, and 111 of those received colored plastic tarsal bands.

Staff at four Indiana FWAs and two reservoirs banded 824 wood ducks (Table 2). The juvenile to adult age ratio was 7.58:1, and the male to female ratio was 0.99:1.

## Discussion

We continue to expand our banding goals to include more relocated geese. These birds are moved from urban areas to FWAs under authority of Indiana's Special Canada Goose Permit, issued by the US Fish and Wildlife Service. Banding more of these geese will allow us to better estimate harvest rates and the rates at which these birds return to urban areas.

Overall, IDFW had attempted to band 5,000 Canada geese per year by the 2009 banding season. This goal was reassessed before the 2010 season in an effort to more efficiently target effort toward areas where banding has not occurred in recent years. Rather than focus on sheer numbers, we focused on areas of the state that have been historically underrepresented in the banding data. This is the tack we will continue to take in the near term (next 2 – 4 years).

It was a poor year for wood duck banding. Fewer than 100 adults were banded. Much of the shortfall from the average number banded came from LaSalle FWA, where in recent years 6-700 ducks have been banded per year, but only 304 were banded this year. We were well short of the federal sub-Flyway goal (1,285) for wood ducks banded in Indiana during this reporting period, for the first time in several years. Finding concentrations of adult birds continues to be a challenge, especially adult females. We are investigating the possibility of using cannon nets to trap wood ducks next year, by which means we will hopefully be able to more effectively capture birds in loafing areas. However, it is proving difficult to work within existing homeland security regulations regarding explosives. Wood duck production seemed to be good this year, though the number of adults that were banded was very low. Water levels statewide were good, as were habitat conditions for brood rearing. The age ratio of juveniles to adults was very high, though this is biased by trap aversion in older birds.

Duck banding crews that requested them were supplied with bands and information needed to band any mallards, American black ducks (*Anas rubripes*), and blue-winged teal (*Anas discors*) that were captured incidental to wood duck operations. Very few other species were banded, but the possibility remains and is somewhat dependent on habitat conditions that vary from year to year.

Table 1. Canada geese banded in Indiana during this reporting period.

Age	Unknown Sex	Male	Female	Total
Adult	0	1,501	1,530	3,031
Juvenile	0	526	620	1,146
Unknown	4	0	0	4
Total	4	2,027	2,150	4,181

Table 2. Number of wood ducks banded at four Indiana Fish and Wildlife Areas and two reservoirs during this reporting period. The numbers in parentheses are the statewide quotas for that age and/or sex.

Age	Unknown Sex	Male	Female	Total
Adult	0	42 (218)	54 (312)	96
Juvenile	0	368(314)	360 (441)	728
Unknown	0	0	0	0
Total	0	410	414	824



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